

BRA

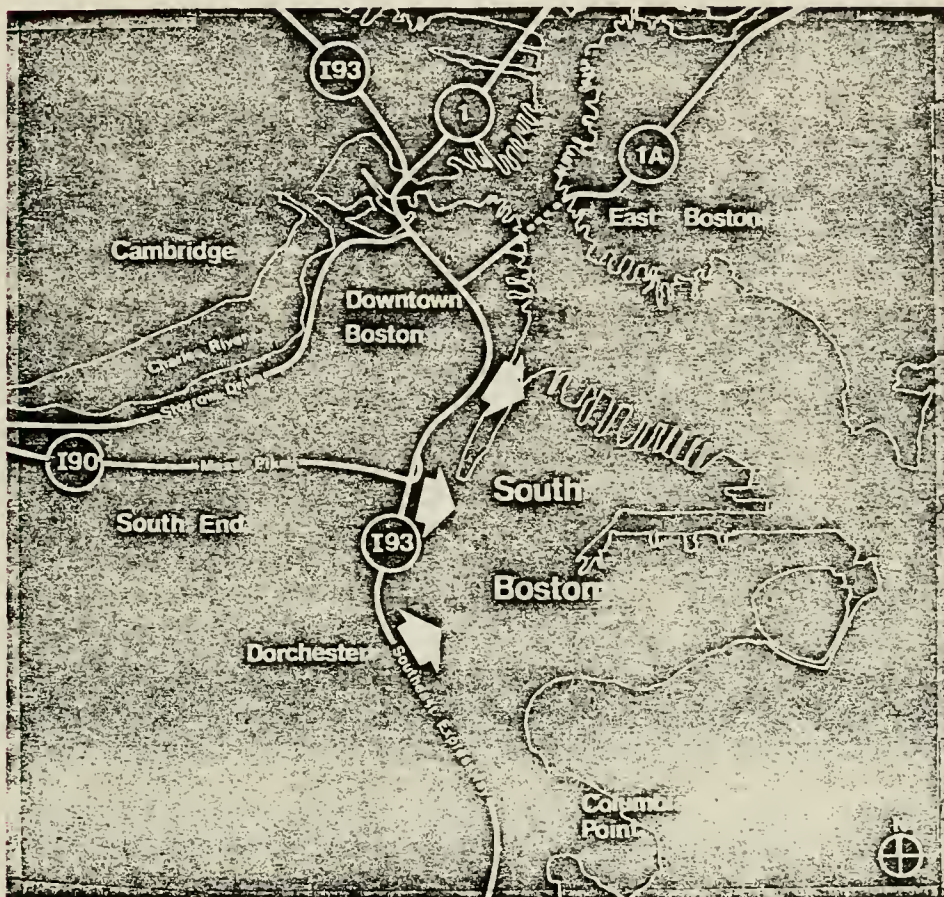
1742

1777
Teux

ENVIRONMENTAL FOUNDATION FOR PROJECT DEVELOPMENT

SEAPORT ACCESS SYSTEM

SOUTH BOSTON



BOSTON
PUBLIC
LIBRARY

Prepared by:

Boston Redevelopment Authority
Massachusetts Port Authority

For Submission to:

Massachusetts Department of
Public Works

February, 1981

LIBRARY
JUL 10 1964



99 HIGH ST. BOSTON, MASSACHUSETTS 02110 (617) 482-2930 TELEX 94 0366

Boston Redevelopment Authority

1 City Hall Square
Boston, Massachusetts 02201
(617) 722-4300

February 17, 1981

Commissioner Dean Amidon
Massachusetts Department of Public Works
100 Nashua Street
Boston, Massachusetts 02114

RE: SEAPORT ACCESS SYSTEM - ENVIRONMENTAL
FOUNDATION FOR PROJECT DEVELOPMENT

Dear Commissioner Amidon:

Since our last correspondence with you concerning the Seaport Access System improvements proposed for South Boston, staff from both of our agencies have met with Mr. Bob Horigan and representatives of the Federal Highway Administration.

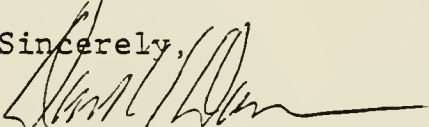
Apparently much of the proposed work, being reconstruction of facilities or improvements within existing rights-of-way, can be considered "categorical exclusions" which would not require significant additional environmental documentation. Therefore, we have prepared an agenda for your consideration which classifies projects in two categories:

1. Categorical Exclusion
2. Further Environmental Assessment Required

The projects in the Seaport Access System Preliminary Environmental Assessment have been allocated into these categories. This agenda is our Environmental Foundation for the Seaport Access System. Your concurrence in the designation will allow us to undertake engineering and to secure funds needed for construction of categorical exclusion items. Similarly, we can undertake the tasks necessary to prepare the Assessments of the facilities requiring additional environmental work.

If you would like further clarification, we would be most happy to meet with you at your convenience. We look forward to an early resolution of the environmental status of proposed elements of the Seaport Access System and thank you for your cooperation.

Sincerely,


David W. Davis
Executive Director
Massport

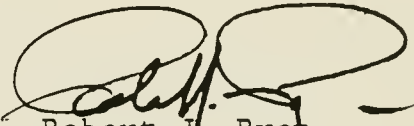

Robert J. Ryan
Director
Boston Redevelopment Authority

TABLE OF CONTENTS

	<u>Page</u>
Letter of Transmittal	
Introduction	1
Proposed Environmental Course of Action	1
Community Input and Priorities	2
Project Descriptions	4

ENVIRONMENTAL FOUNDATION FOR PROJECT DEVELOPMENT

Introduction

At the request of South Boston residents and businessmen, the Boston Redevelopment Authority and the Massachusetts Port Authority sponsored a study of truck routes and possible new roads and/or improvements needed to address Seaport Access problems in South Boston. The BRA and Massport coordinated this effort with the Massachusetts Department of Public Works.

The study included the identification of certain transportation improvements to facilitate truck access and an evaluation of their environmental and traffic impacts. The study culminated in a report entitled "Preliminary Environmental Assessment-Seaport Access System" which was completed in June 1980 and submitted to the Massachusetts Department of Public Works and the Federal Highway Administration. The report was also designed to demonstrate ongoing community liaison work and to serve as the basis for any additional technical analyses needed to establish the Seaport Access System components for funding.

While the study was underway, several meetings were held with South Boston residents and businessmen serving on the Seaport Access Advisory Group, and additional public meetings were conducted in South Boston to explain the purpose, progress and results of the study.

The importance of this project cannot be understated because the proposed and in-progress developments in South Boston will result in the considerable growth of vehicular traffic destined for the northern industrial area. The Seaport Access System Study is designed to plan for that growth so that it will not be detrimental to the existing residents and businesses in South Boston.

Proposed Environmental Course of Action

Although the Preliminary Environmental Assessment identified alternative improvement packages for possible further analyses, it has become evident that:

- a number of elements represent the rebuilding of existing facilities in poor condition or in need of functional modifications; and
- all of the elements represent incremental improvements supporting the overall Seaport Access System concept and are justifiable on an individual basis, given the study done to date.

- For these reasons, the preparation of a large, detailed environmental impact assessment on alternative improvement packages seems not only problematic, but unwarranted.

We have concluded that the environmental foundation has been created which will permit the development of the Seaport Access System in an incremental, but comprehensive way, in a manner similar to the "useable segment" concept of the Urban Mass Transportation Administration. In taking this approach, the Seaport Access System improvement elements are logically broken into two categories - those representing substantially the rebuilding of existing facilities within established rights-of-way and those representing new facilities requiring new rights-of-way. Those items in the first class, given the groundwork of environmental work to date, should represent "categorical exclusions" requiring no significant further environmental documentation. The second class, new facilities, would be subject to further detailed environmental assessment, primarily on an individual basis.

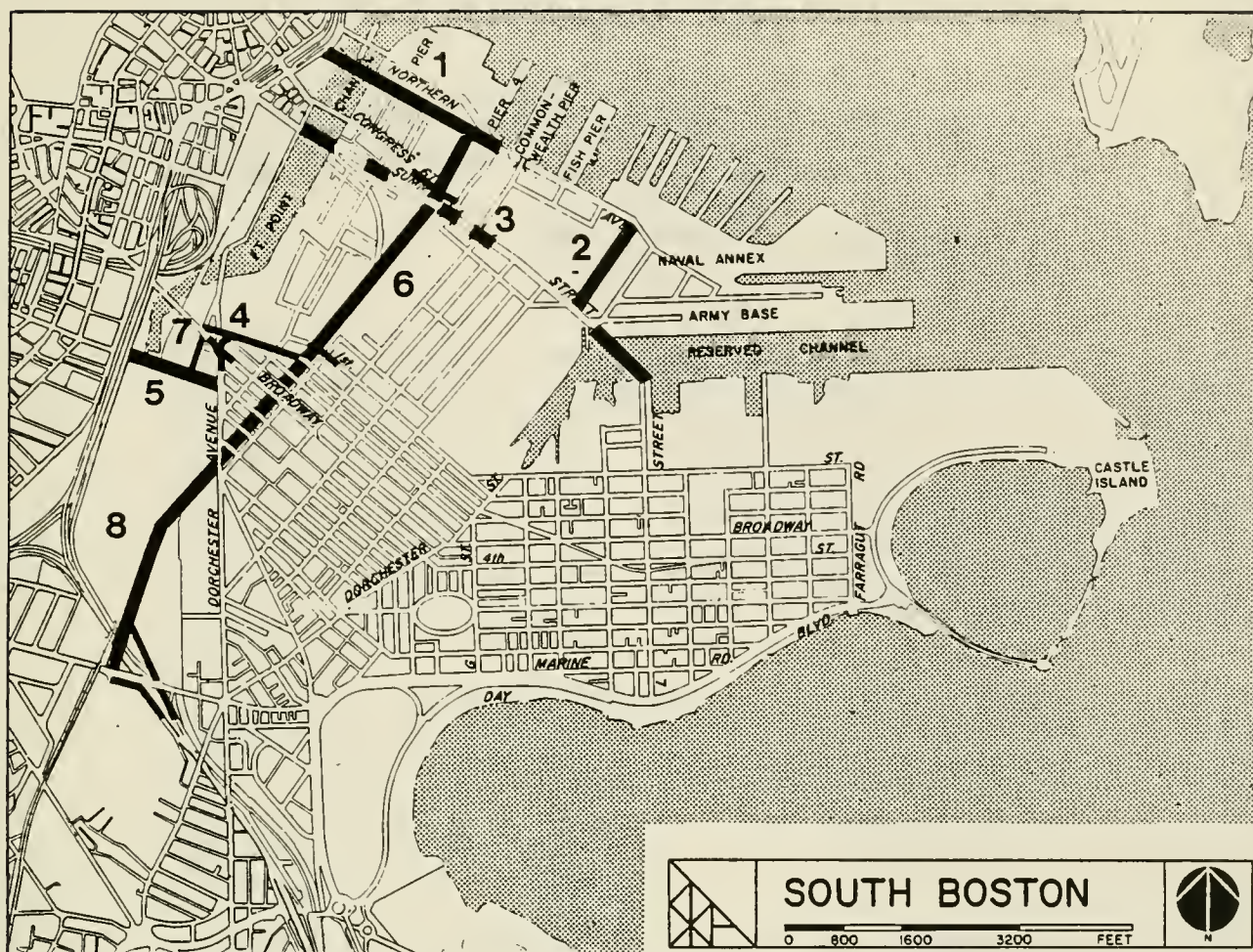
A listing of system improvement elements divided into the two classes is presented on the next page with a location map. Detailed descriptions of the elements and their context are set forth later.

Community Input and Priorities

During the formulation of the Preliminary Environmental Assessment, meetings with the South Boston community indicated that there was considerable opinion directed towards confining commercial/industrial access to South Boston to the bridges north of First Street. Due to the existence of a sizeable industrial area along Dorchester Avenue and the nature of the major roadway network, the practicality of this was severely questioned.

Nevertheless, the Seaport Access System elements described herein which are located south of First Street are not viewed with the same degree of urgency as those on the north, such as the Northern Avenue Bridge and the Summer Street Connection, which are of immediate concern. Thus, priority attention is in keeping with the idea of emphasizing northern access.

In attempting to cause commercial traffic to enter South Boston to the north, a community proposal for a new direct connection across the Fort Point Channel from the interchange of the Massachusetts Turnpike and the Central Artery was voiced. This concept is of such major proportions and so long-range in nature that it can only be considered in the context of reconstructing the Central Artery. For this reason, the idea has been conveyed to the Massachusetts Department of Public Works for inclusion in their Central Artery planning work.



Categorical Exclusions

Approx. 1979
Est. Cost
(million \$)

(1) Northern Avenue Bridge Replacement	12.0
(2) Roadway Link - Northern Avenue to Summer Street	0.5
(3) Summer Street Bridges	1.1
(4) Broadway - Dorchester Avenue Intersection Improvements	0.3
(5) West Fourth Street Bridge	4.4

Further Environmental Assessment Required

(6) Spine Road Northern Avenue to West First Street	4.1
(7) West Fourth Street Bridge with Foundry Street Ramp	5.4
(8) Rail Cut Truck Route	3.5

PROJECT DESCRIPTIONS

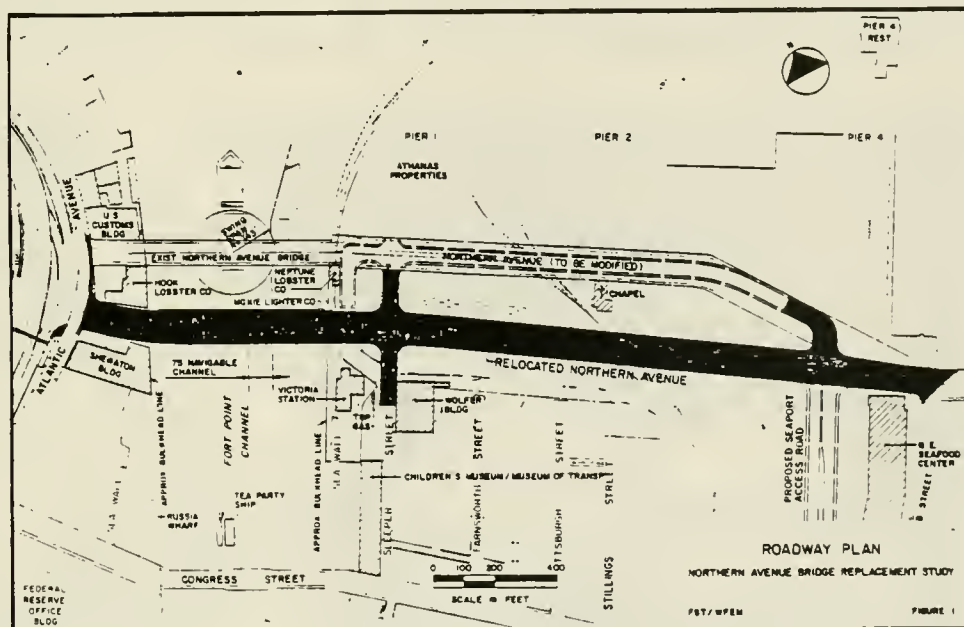
(1) Northern Avenue Bridge (Categorical Exclusion)

NATURE OF PROJECT: Upgrading Connection - Needing New
Right-of-Way
Environmental "Negative (i.e. no
significant impact) Declaration"

The existing bridge cannot be repaired to extend its useful life. A replacement structure is necessary and a preliminary design has been prepared. To maintain the flow of traffic to and from South Boston during construction, this replacement facility will be located about 200 feet up channel from the existing structure. Thus, to upgrade a vital link between the downtown and the South Boston peninsula, a new right-of-way is required. On the South Boston side, the new right-of-way would merge with the existing Northern Avenue approximately at the junction with B Street.

The preliminary cost estimate for the replacement bridge and right-of-way in 1979 dollars is \$12 million. The U.S. Congress which controls the Fort Point Channel, a federal watercourse, will, in February, consider legislation to allow the new bridge to be built as a fixed span. Such legislation should expedite the permit process and enable the construction of a fixed span structure as is proposed.

With the implementation of planned development projects in South Boston, the bridge replacement will be increasingly important. A fixed span structure will allow a continuous stream of traffic to cross over to and from South Boston. This will upgrade the connection.



PROJECT DESCRIPTIONS

(2) Northern Avenue to Summer Street Link (Categorical Exclusion)

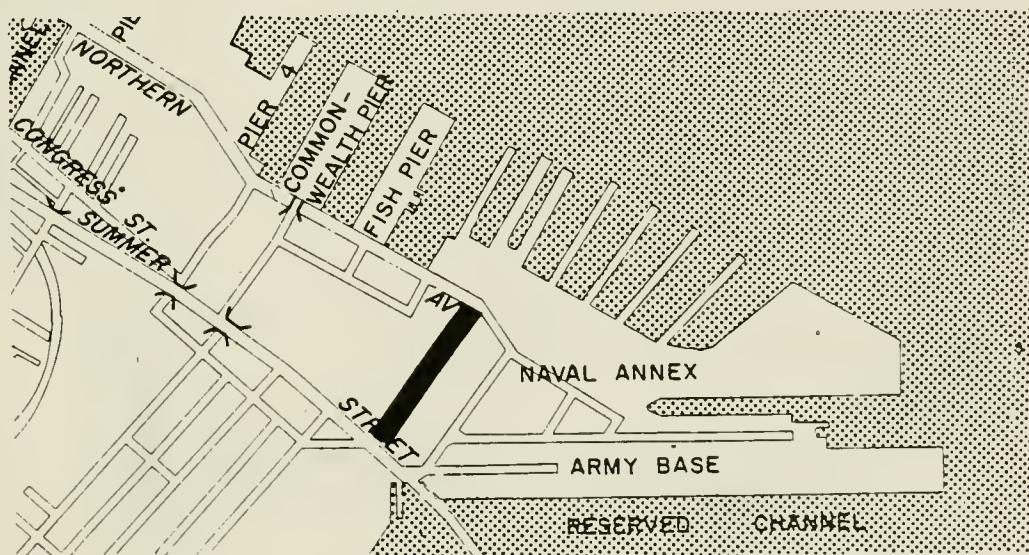
NATURE OF PROJECT: Upgrading Connections - Needing New Right-of-Way

Both Northern Avenue and Summer Street are key connections between the regional highway network and the northern industrial section of South Boston. Currently the only link between these two arteries is the viaduct and Ramp Street which is owned by Massport. This link is indirect and involves two turning movements which are awkward for tractor trailers.

A more direct link is proposed just west of the Boston Marine Industrial Park adjacent to Massport's Commonwealth Flats. Such an alignment could result in a better distribution of traffic emanating from the BMIP. By distributing this flow, a higher level of service can be maintained along Northern Avenue which will be the site of several development projects generating higher traffic volumes in the next ten years. Minimizing congestion of these east-west arteries improves access to the regional highway system.

The estimated cost of this link is \$500,000.

Although this is a new road, an extensive assessment of alternatives is unwarranted because the land available for the road right-of-way is closely defined. The earlier Preliminary Environmental Assessment mentioned the possibility of cutting a road through the Commonwealth Flats. However, such a road would constrain Massport's development options for that site particularly with regard to establishing a foreign trade zone thereon with all its attendant security requirements. Thus, the only alternative for the link alignment is that between the BMIP and Commonwealth Flats.



PROJECT DESCRIPTIONS

(3) Summer Street Bridges (Categorical Exclusion)

NATURE OF PROJECT: Repair or Replacement - Upgrading
Connection in Existing Right-of-Way

There are six Summer Street bridges connecting the northern industrial section of South Boston to the regional highway network. Five of these bridges are owned by the City and have been analyzed recently to determine needed repair. The sixth, over the Conrail tracks, is owned by the Commonwealth of Massachusetts. It requires no remedial work. Deteriorated conditions have resulted in reduced load capability for some of these structures. As a result, heavy trucks must detour to other streets causing congestion and safety hazards on those other streets.

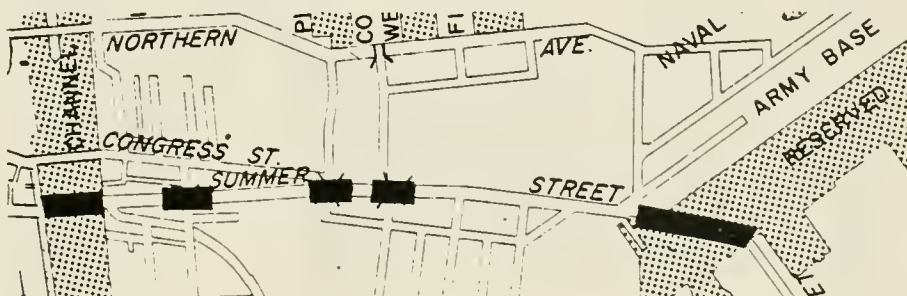
Three of the bridges, A Street, B Street and the bridge over the Fort Point Channel all have a deadload problem necessitating slab or deck replacement. The bridge over C Street has a similar deadload problem but the proximity to the viaduct constrains the pavement stripping option and necessitates total bridge reconstruction.

The Reserved Channel Bridge needs additional stringers, and repairs to the grid would eliminate the current problem of grid damage caused by heavy trucks.

City bridge consultants have recommended a program of minimal repairs to the City-owned Summer Street Bridges to increase their loading capacity to allow 36-ton loads carried in five-axle vehicles. The estimated cost for this work is \$1,100,000.

Projections of traffic volumes to the Year 2000 indicate an 80% increase in trucks using Summer Street based on new development activities in South Boston and ordinary traffic growth. This clearly indicates the need to insure the Summer Street bridges are adequate to accommodate these trucks, many of which will be carrying heavy cargo.

The repair of the bridge over Conrail should be planned mindful of the possibility of a new Spine Road being built in the Conrail Yards connecting Northern Avenue to West First Street. Such a road will need adequate clearance under the Summer Street Bridge. Thus, some grade adjustment may be required in the bridge.



PROJECT DESCRIPTIONS

(4) Broadway Intersection Improvements (Categorical Exclusion)

NATURE OF PROJECT: Upgrading Connection within Existing Right-of-Way

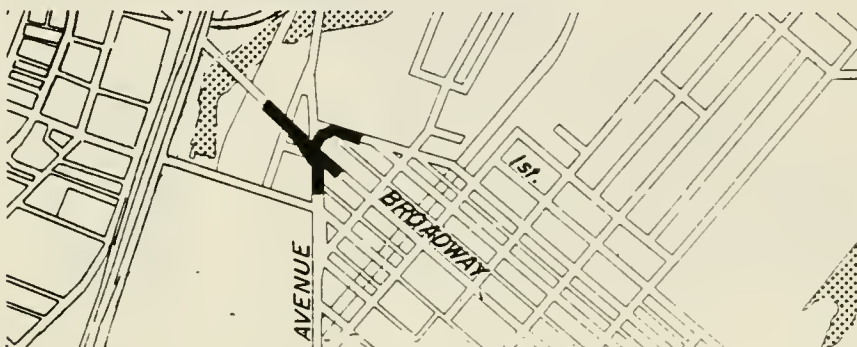
The intersection of Broadway with Dorchester Avenue is one of the most congested in South Boston with cars, trucks, buses and pedestrians converging with less than optimum channelization and control. The location of the MBTA subway entrance in the Broadway traffic island forces pedestrians into the street and creates conflicts with through vehicular traffic.

The forecast of traffic volumes for Year 2000 shows a 15% increase in overall traffic on the Broadway Bridge and a 17% increase (over 1979 levels) on Dorchester Avenue at this intersection. The existing traffic level of service in the intersection is Level D and without any improvements to the intersection, the increased traffic volumes would degrade service to Level F by Year 2000. This clearly requires mitigation.

The MBTA is now considering the removal of its kiosk and the relocation of the subway entrance to corner sidewalk locations. This work would eliminate the pedestrian-vehicle conflict caused by the MBTA kiosk, but it will not address all the problems causing dangerous conditions and congestion in the intersection. New signals, pavement markings and traffic channelization are needed to smooth traffic flow. Provision for pedestrian movement should be made to increase safety.

These improvements are typically funded under the Federal/State Urban Systems program and the 1979 cost estimate for the intersection work was \$280,000.

This intersection is a key link for both east-west and north-south traffic destined for the northern industrial section of South Boston. These "TOPICS"-type improvements would upgrade the traffic level of service and thereby encourage truckers to follow the designated truck route instead of their trying to avoid congestion by traveling on residential streets.



PROJECT DESCRIPTIONS

(5) West Fourth Street Bridge Repair (Categorical Exclusion)

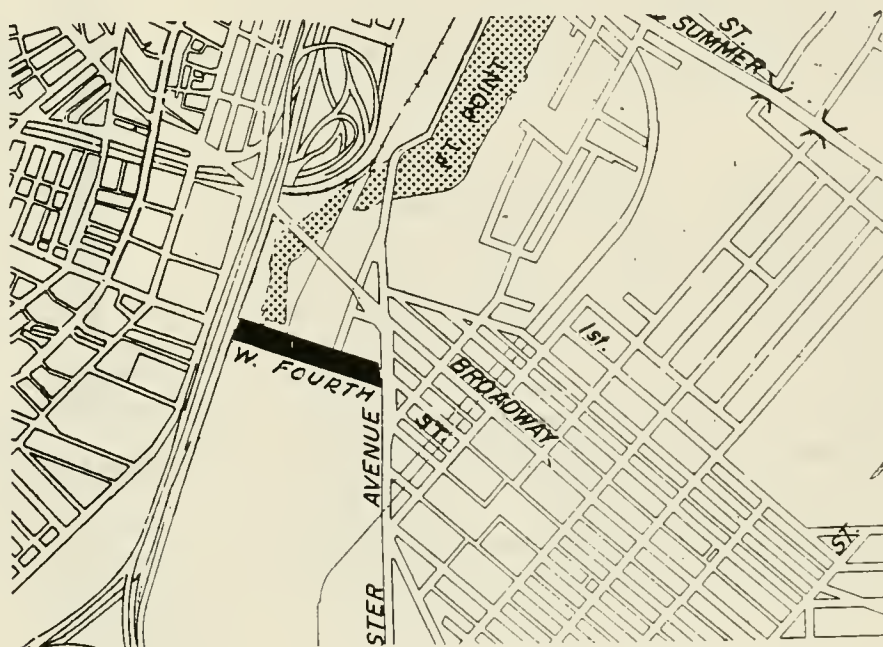
NATURE OF PROJECT: Upgrading Connection in Existing Right-of-Way

The existing bridge has a weight limit of 12 tons which restricts the size of trucks now able to use it. As a result, heavy truck traffic approaching South Boston from the south enters South Boston at Andrew Square, creating congestion and pedestrian-vehicle conflict. This same traffic could continue on the Frontage Road or the Expressway outside of the South Boston community if the West Fourth Street Bridge were strong enough to accommodate higher loads.

Because of this bridge's weight restriction, heavy truck traffic from the south and west now uses the Broadway Bridge, which results in an undue concentration of truck traffic on that bridge. As long as the MBTA kiosk remains on the bridge, this excessive use of the bridge by heavy trucks should be avoided.

Repairs to the West Fourth Street Bridge will allow a more even distribution of heavy truck traffic so no one area is exposed more than its share to the disadvantages of a concentration of trucks.

The repairs to the bridge would be made within the existing alignment. The cost in 1979 dollars to restore the bridge to full capacity was \$4.4 million.



PROJECT DESCRIPTIONS

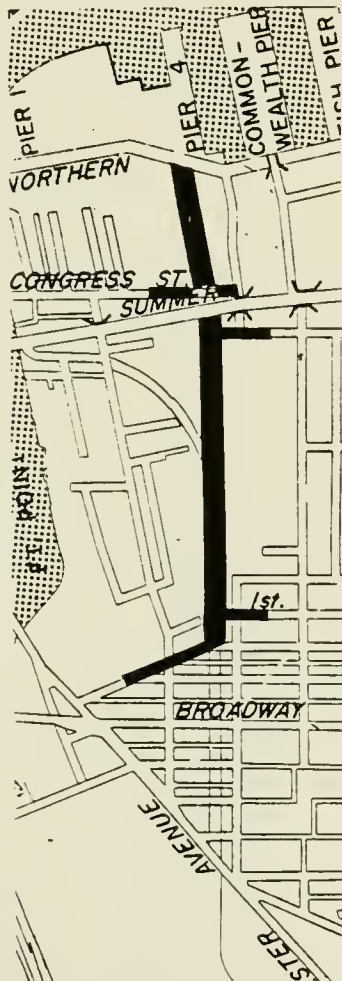
(6) Spine Road (Assessment Required)

NATURE OF PROJECT: New Connection Needing Right-of-Way Acquisition

The so-called Spine Road would traverse the Conrail freight yards running north and south and connecting Northern Avenue to West First Street. Such a road would provide a more direct north-south connection than the current circuitous routes that include A, B and D Streets. At-grade intersections at Fargo Street, Congress Street and Northern Avenue would facilitate connections to the major east-west routes that serve the northern industrial sector of South Boston.

In conjunction with the new north-south connector, two other improvements are required. These two projects upgrade connections along the existing right-of-way.

The first would provide improvements at the intersection of West First Street and B Street including repairs to the pavement surface and reducing the sharp angle of the turning movements from West First Street to B Street to West Second Street.



The second improvement involves the West Second Street Bridge over the Conrail tracks. This bridge was recently rated at slightly below the maximum rating. It is used by some 670 trucks per day, many of which carry heavy loads. The high volume of heavy truck traffic necessitates extra maintenance and repair. Replacement would be considered to allow a wider bridge with a better alignment with West First Street.

These two improvements with the Spine Road combine to form a system which will relieve existing and projected congestion, provide a safer roadway alignment and, most importantly, will divert trucks from residential sections of South Boston.

Without the provision of the Spine Road, traffic volumes on A and D Streets are expected to double by the Year 2000. This will create congestion that will limit development opportunities in the area. The new direct right-of-way will be more attractive to truckers than the current

route and will divert trucks off Broadway sooner and decrease the temptation to traverse residential streets en route to the northern industrial area.

The estimated cost in 1979 dollars is about \$4.1 million.

PROJECT DESCRIPTIONS

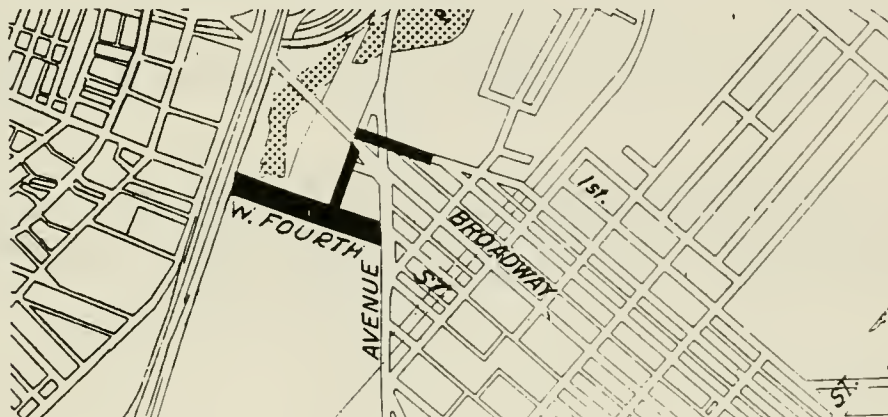
(7) West Fourth Street Bridge Replacement with Foundry Street Ramp (Assessment Required)

NATURE OF PROJECT: Upgrading Connection Needing New Right-of-Way

This project was proposed in the previous section for immediate construction as a simple replacement of an existing structure. However, with the addition of one feature, the Foundry Street ramp, the project's effectiveness would significantly increase. Repairs to the bridge alone would result in the redefinition of the South Boston truck route from the use of Broadway, Southamptton Street, Columbia Road and Dorchester Avenue to the additional use of West Fourth Street. The repair work would enable the bridge to accommodate the greater traffic volumes and maximum loads generated by the rerouting.

The Foundry Street ramp feature would allow trucks to avoid the very congested Broadway intersection by passing from West Fourth Street under the Broadway Bridge and connecting to West Second Street. It is possible that the diversion of northbound vehicular traffic from the intersection would allow the discontinuance of a short segment of Dorchester north of the intersection. As a result, the number of streets intersecting at this location would be reduced and the safety of pedestrians, especially MBTA patrons, would be promoted. Thus, the proposed improvement would result in a higher level of service at the Broadway intersection. Built in conjunction with the Spine Road mentioned heretofore, it would divert truck traffic from residential areas by removing it from Broadway altogether and providing a more direct link to the northern industrial area. This project clearly facilitates truck access to the regional highway network.

The 1979 estimated cost of a replacement bridge including the Foundry Street ramp is about \$5.4 million.



PROJECT DESCRIPTIONS

(8) Railroad Cut Truck Route (Assessment Required)

NATURE OF PROJECT: New Truck Road on New Right-of-Way

A major new roadway is proposed to facilitate the north-south connection between the Southeast Expressway and the northern industrial area of South Boston. The roadway to be built within the existing Conrail railroad cut would be restricted to trucks because of the narrowness of the existing railcut and the prohibitive cost of replacing eleven bridges which span it. Such a route would benefit only truck traffic with an origin/destination south of South Boston. Westbound traffic would not benefit from this route.

Previous study of this project indicated that an unrestricted roadway might invite commuter traffic seeking to avoid the Southeast Expressway. As such, more traffic would enter South Boston, thereby aggravating the problem that a seaport access system is designed to alleviate. Therefore, an assessment of this route would not include analysis of an unrestricted road.

The alignment for the truck route beginning at the Southampton Street on- off-ramp runs parallel to the Midland Branch railroad tracks northward into the railcut passing under Dorchester Avenue and streets including West Seventh to West Second Street. Once under the West Second Street Bridge the railcut route connects to the Spine Road heretofore outlined which would run along the eastern boundary of the Conrail freight yards to Northern Avenue. The Spine Road would not be limited to truck traffic.

Traffic projections for the Year 2000 indicate the railcut route would serve 2100 trucks daily. It would relieve the congestion in Andrew Square caused by trucks now using Dorchester Avenue, Boston Street and Southampton Street.

Topics of study in the assessment of the railcut truck route would be the impacts on water, noise and air quality in the region. Further, the potential for conflict with Amtrak trains at level crossings in the Southampton freight yards must be analyzed. Federal railroad officials have already expressed opposition.

The use of the railcut would reduce the number of the available Conrail tracks from four to one. This would limit options for more intensive use of rail in the northern industrial area of South Boston in the future. This is an issue requiring evaluation in the assessment.

BOSTON PUBLIC LIBRARY



3 9999 06315 565 7

The railcut alternative has been endorsed by several South Boston residents because it should remove trucks from the residential streets completely. However, this route would only alleviate the traffic congestion and disruption caused by trucks with a southerly origin/destination. Forecasts for Year 2000 traffic indicate that about 3700 trucks will still be using the West Fourth Street and Broadway Bridges and many of these trucks will be destined for the northern industrial area. In the assessment of the railcut alternative, some consideration must be focused on the relative merits of the exclusive truck route in the railcut benefitting southbound traffic versus improvements to the West Fourth Street Bridge allowing both south and westbound traffic to connect to the Southeast Expressway at a more northerly point instead of traversing South Boston to reach the Expressway.

The assessment need not investigate in detail alternate alignments for the railcut route since the railcut itself constrains roadway options and the development of special facilities by Amtrak will limit options in the Southampton yards.

The 1979 estimated cost of construction of the railcut route is around \$3.5 million.

